

**Amendments to the Drawings:**

Enclosed are formal drawings.

Attachment: Replacement Sheets



Application No. 09/463,098  
 Amdt. Dated Aug. 16, 2004  
 Reply to Office Action of May 18, 2004  
 Replacement Sheet

A

1	5	10	15	20	25	27																				
E	T	H	V	T	G	G	S	A	A	R	T	T	S	G	L	T	S	L	F	S	P	G	A	S	Q	N
T	S	Y	T	S	A	A	A	Q	G	H	A	A	Y	S	F	A	G	E	L	T	L	A	P	K	R	K
S	R	T	R	V	S	A	Q	V	S	Y	S	V	R	R	I	V	N	I	S	A	S	S	R	H	D	
N	T	A	T	T	Q	T	T	T	E	Q	G	T	Q	P	V	S	R	M	N	Q	R	G	A	E		
G	O	L	M	E	V	M	S	N	M	H	A	S	N	T	S	R	R	R	R	O	O	R	T			
H	S	S	L	R	P	R	K	D	L	A	K	Y	P	K	D	A	M	V	T	O	R	N	T			
D	L	R	A	R	E	S	E	V	V	L	V	R	A	E	T	O	G	F	G	F	H	E				
O	T	G	E	H	I	E	E	H	E	V	E	V	E	I	Y	D	M	V	T	H	V	L				
P	A	N	H	Q	W	K	E	A	O	G	N	N	O	M	T	W	W	Y	Y	K	M	W				
A	R	M	W	M	Y	N	N	L	C	E	N	N	O	K	M	Y	Y	Y	Y	Q	Q	S				
R	Y	W	Y	Y	G	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y				

B

1	5	10	15	20	25	27																				
Q	T	H	V	T	G	G	S	A	A	R	T	T	S	G	L	T	S	L	F	S	P	G	A	S	Q	N
T	T	T	V	V	Q	G	H	A	A	H	S	S	V	G	V	G	R	L	P	K	K					
R				Q	V	S	Q	V	R	R			R			S	S	Q			Q					

Fig. 1

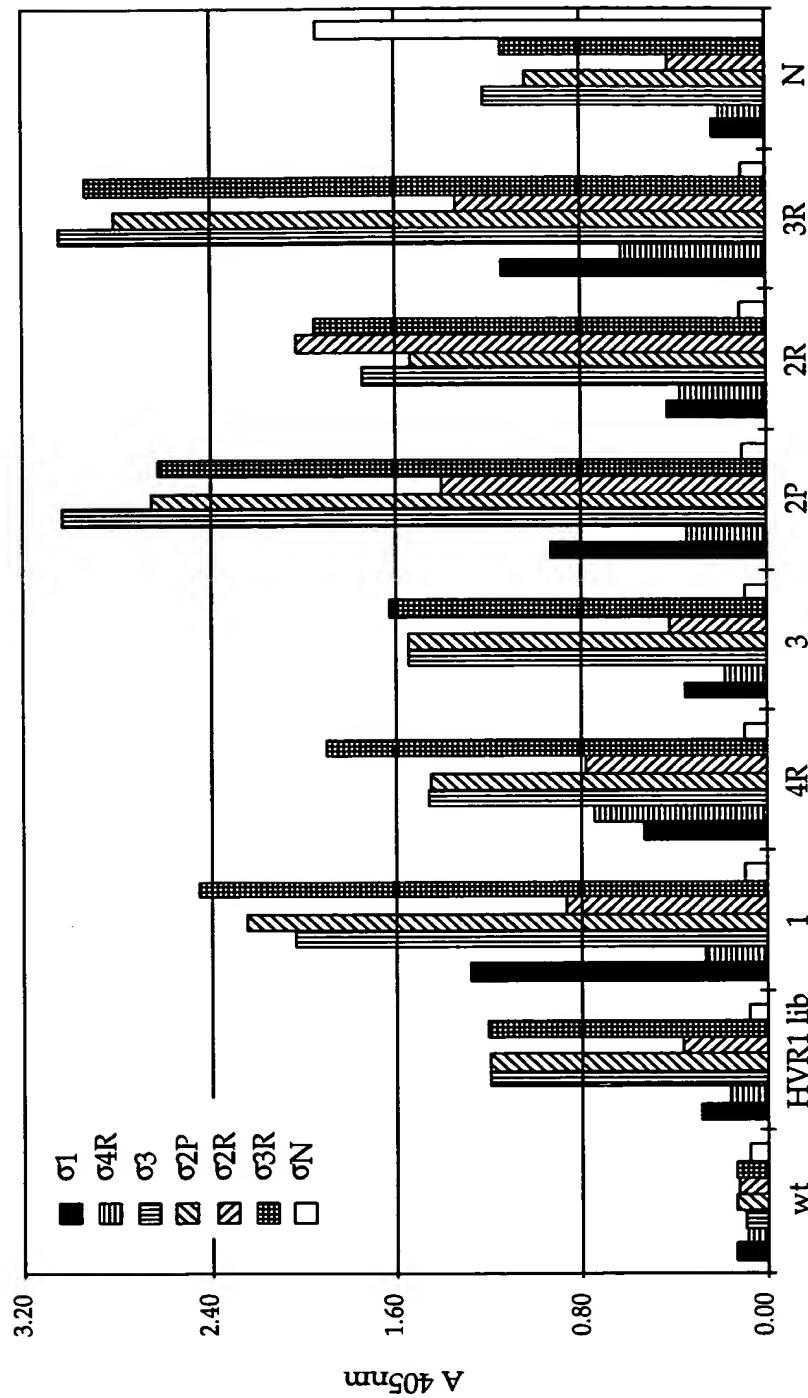


Fig. 2

Application No. 09/463,098  
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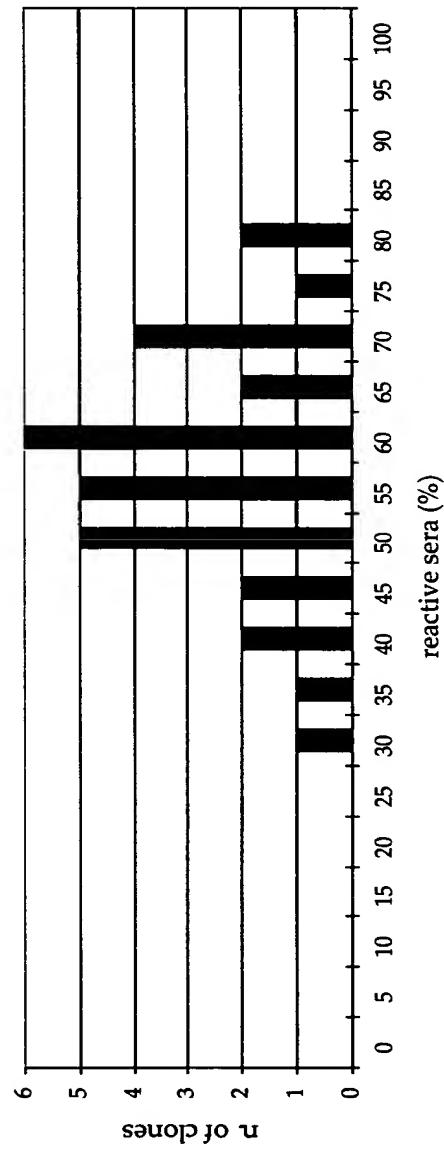
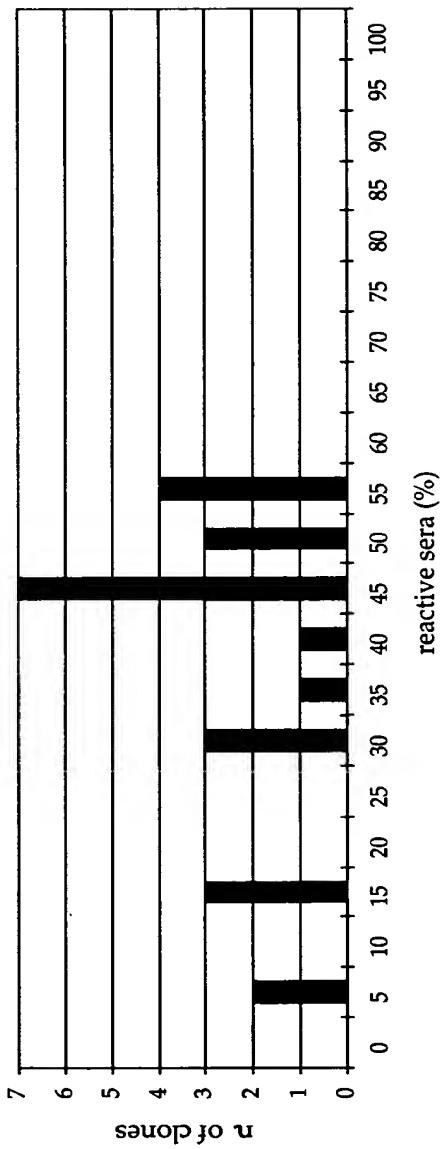


Fig. 3



Application No. 09/463,098  
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A

	R9	H1	M63	M122
C7	0.14	0.13	0.00	0.22
C8	1.67	1.83	1.05	0.38
C9	2.30	0.65	0.21	0.11
C10	1.23	1.30	0.71	0.64
C12	0.16	1.26	0.20	1.09
C13	0.90	2.06	0.57	0.19
C14	0.47	0.63	1.09	2.27
C17	1.48	1.35	1.00	0.00
C23	0.00	0.88	2.65	0.00
C27	0.00	0.00	0.00	3.17
C28	2.98	0.15	0.00	1.98
C29	0.00	0.00	2.85	1.17
C30	0.18	0.00	2.85	1.17
C40	3.17	1.84	0.20	2.96
C48	3.07	2.58	0.00	2.56
C49	0.12	0.00	0.00	0.00
C50	0.00	0.00	0.12	0.00
C56	0.33	0.12	0.00	0.00
C58	2.85	1.42	0.38	0.35
C62	0.00	0.00	0.13	0.00

frequency 75% 70% 70% 70% total: 100%

B

	R9	H1	M63	M122
1V	0.49	2.51	0.00	0.20
2V	0.00	0.19	0.11	0.00
3V	0.65	1.90	1.73	0.62
4V	0.25	0.00	0.00	0.29
5V	1.75	2.47	0.31	0.00
7V	0.60	1.09	1.16	0.88
8V	0.30	0.88	0.00	0.00
9V	0.00	0.59	0.00	0.00
10V	0.58	0.11	1.98	0.00
1P	0.00	0.00	0.00	0.33
5P	0.24	0.28	0.44	0.00
6P	0.47	1.54	0.27	0.31
7P	0.78	1.33	1.00	0.00
8P	0.68	0.57	0.14	0.38
10P	1.20	1.12	0.81	0.88
11P	0.32	0.44	0.00	0.22
12P	1.50	1.08	0.84	0.90
13P	0.49	0.00	0.00	0.31

frequency 83% 83% 61% 61% total: 100%

C

	R9	H1	M63	M122
X1	0.00	0.00	0.00	0.00
X2	1.37	0.17	0.21	0.68
X3	0.15	0.56	0.38	0.00
X4	0.00	0.00	0.00	0.00
X5	0.00	0.14	0.00	0.00
X6	0.25	0.00	0.00	0.31
X7	0.66	0.83	0.60	0.34
X8	1.04	1.31	0.98	0.45
X9	0.96	0.21	0.00	0.00
X10	0.00	0.00	0.00	0.00
X11	0.74	0.33	0.11	0.91
X12	0.00	0.00	0.00	0.00
X13	2.30	0.18	0.54	0.00
X14	1.20	0.00	0.00	0.00
X15	2.38	0.00	0.00	1.60
X16	1.92	2.30	1.86	2.19
X17	0.00	0.00	0.00	0.00
X18	0.00	0.00	0.00	0.00
X19	0.00	0.00	0.00	0.00
X20	0.47	0.33	0.26	0.00
X21	0.00	0.86	1.45	1.96
X22	0.37	0.44	0.44	0.12
X23	0.61	0.60	0.10	0.00
X24	0.00	0.00	0.80	0.73
X25	0.00	0.00	0.00	0.47
X26	0.00	0.00	0.00	0.00
X27	0.00	0.00	0.00	0.00
1NV	0.00	1.50	0.22	0.00
2NV	0.00	0.40	0.23	0.00
3NV	0.10	0.11	0.00	0.00
4NV	0.00	0.00	0.00	0.00
5NV	0.00	0.00	0.00	0.00
6NV	0.00	0.00	0.00	0.00
11NV	0.10	0.00	0.00	0.53
12NV	0.00	0.00	0.41	0.00
13NV	0.00	0.00	0.00	0.00
15NV	0.12	0.00	0.00	0.19
16NV	0.52	0.84	0.36	0.60
17NV	0.64	0.52	0.41	1.14
3P	0.00	0.00	0.00	0.00
4P	0.00	0.00	0.00	0.00

frequency 46% 44% 41% 37% total: 63%

Fig. 4

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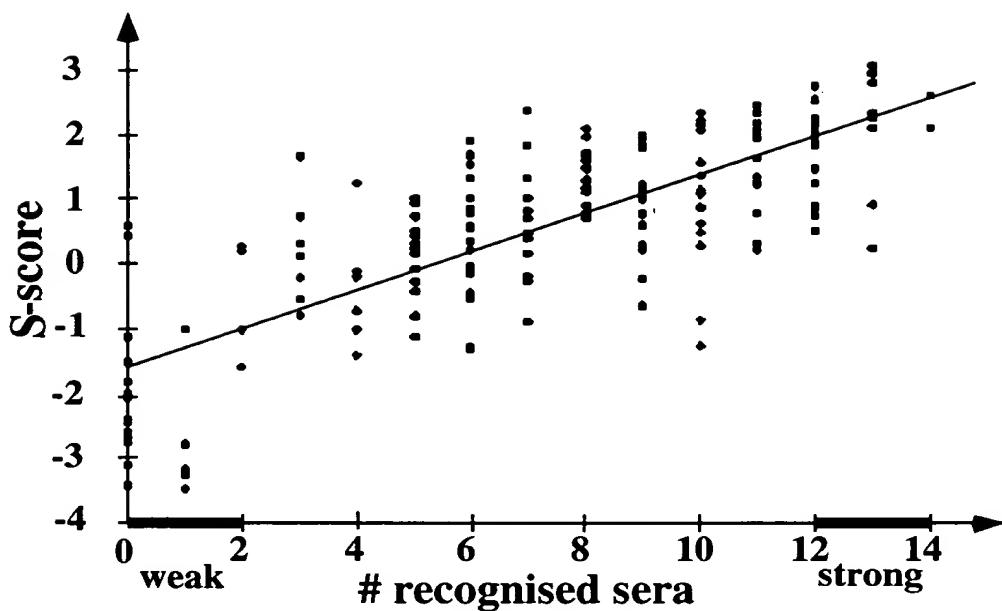


Fig. 5

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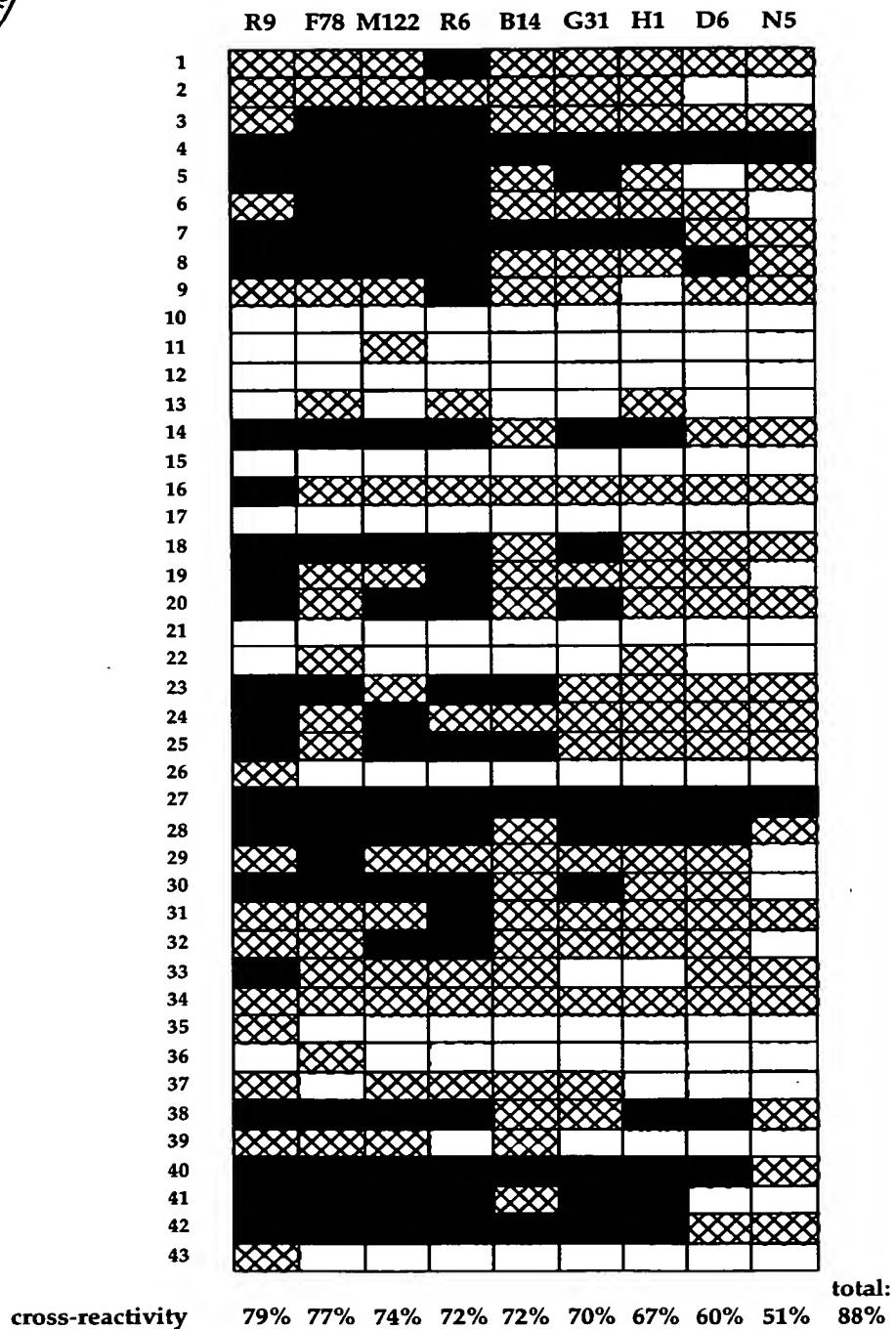


Fig. 6



Application No. 09/463,098  
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A

mimotope	sequence
N5	TTTTTGGVQGHTTRGLVRLFSLGSKQN
R6	TTTTTGGQVGHQTSGLTGLFSPGAQQN
D6	QTTTTGGQVSHATHGLTGLFSLGPQQK
R9	QTTVVGGSQSHTVRGLTSLFSPGASQN
H1	QTHTTGGSQHATSGLTSLFSPGPSQK
G31	TTHTVGGSVARQVHSLTGLFSPGPQQK
M122	QTTTTGGSASHAVSSLTGLFSPGSKQN
B14	QTTVTG-QASHTTSSLTGLFSPGASQK
F78	QTHTTGQAGHQAHSLTGLFSPGAKQN

B

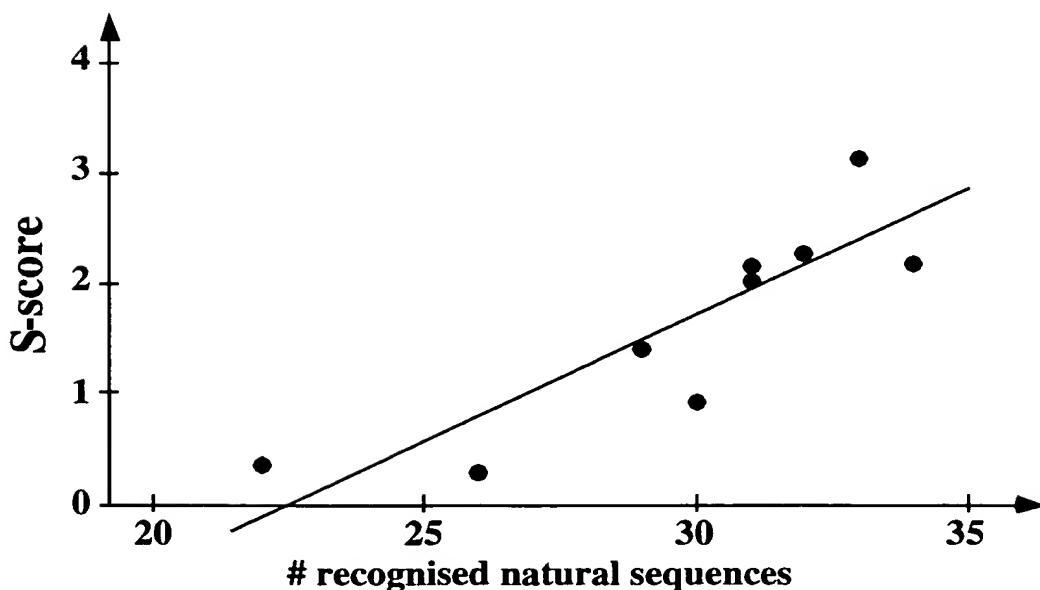


Fig. 7

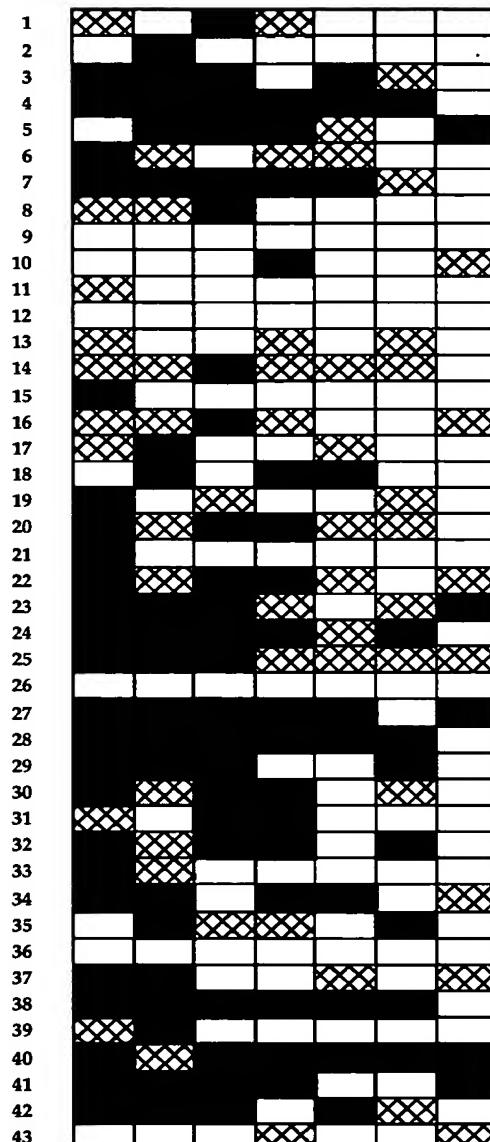


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A

**mimotope G31 F78 R9 D6 M122 H1 N5**

titre (x100) 330 1000 330 130 10 33 5



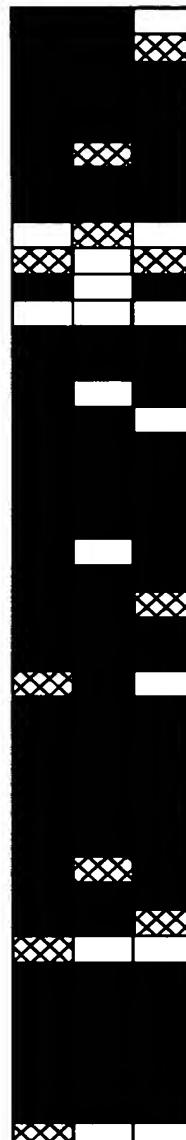
total:

cross-reactivity 77% 70% 60% 60% 44% 42% 28% 91%

B

**MIX3 MIX1 MIX2**

45 25 30



95% 84% 84%

Fig. 8

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B14 QTTVT.GQASHTTSSLTGLFSPGASQK  
 B24 TTTTVGGQASHTTSSLTGLFSPGASQK  
 D6 QTTTTGGQVSHATHGLTGLFSLGPQQK  
 E19 TTHT.GGQQAHHTSRLVSLFSPGASQK  
 F78 QTHTTGGQAGHQAHSLTGLFSPGAKQN  
 G31 TTHTVGGSVARQVHSLTGLFSPGPQQK  
 H1 QTHTTGGVVGHATSGLTSLFSPGPSQK  
 M63 QTHTTGGVVSHTQTRSLVGLFSPGPQQN  
 M122 QTTTTGGSASHAVSSLTGLFSPGSKQN  
 R6 TTTTTGGQVGHQTSGLTGLFSPGAQQN  
 R9 QTTVVGGSQSHTVRGLTSLFSPGASQN

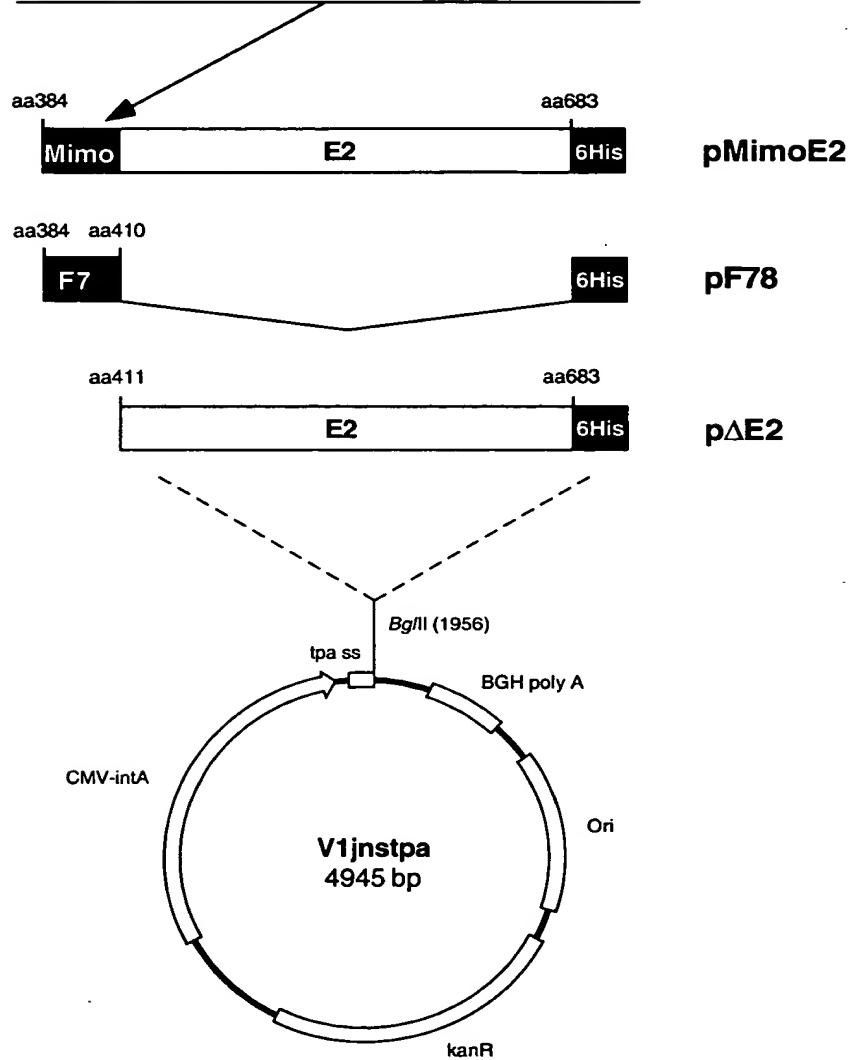


Fig. 9